REMARKS

A. SUMMARY OF THE AMENDMENTS

The present application contains 17 claims numbered 1 to 17. Claim 18 has been cancelled. Claim 17 has been amended to include the additional limitations of former claim 18.

Four paragraphs of the specification have been amended as described above in the Section entitled "AMENDMENTS TO THE SPECIFICATION".

Figs. 1, 5, 9, 14, 17A and 20 have been amended as described above in the Section entitled "AMENDMENTS TO THE DRAWINGS".

No new subject matter has been added by way of the present amendment.

B. OBJECTION TO THE DRAWINGS

On page 2 of the Office Action, the Examiner has objected to the drawings for failing to comply with 37 CFR 1.84(p)(5).

Fig. 4

The Examiner has referred to various passages on pages 40-43 where reference is made to "queue controllers 710_1, 710_2, 710_3, 710_4". However, it is noted that this description accompanies Fig. 7 and not Fig. 4. Thus, the Applicant suspects that the Examiner intended to object to Fig. 7 rather than to Fig. 4.

In response, rather than amend Fig. 7, the Applicant has elected to amend the specification, as suggested in the proposed amendment sent via email to Examiner Lee on March 24, 2005. Specifically, the specification now states more clearly that transmitter 140 comprises N queue controllers 710_j, $1 \leq j \leq$

N, and it is specified that N can be any positive integer including 4. Therefore, it is respectfully submitted that all reference signs referred to in the description of Fig. 7, and in particular "queue controllers 710_1, 710_2, 710_3, 710_4", are present in Fig. 7, either expressly or impliedly, and it is respectfully submitted that Fig. 7 is in full compliance with 37 CFR 1.84(p)(5).

Fig. 5

The Examiner has objected to Fig. 5 for failing to include the reference signs corresponding to "slots 508_A, 508_B, 508_C" and "entries 514_A, 514_B, 514_C". In response, the Applicant has amended Fig. 5 and respectfully submits that Fig. 5 is in full compliance with 37 CFR 1.84(p)(5).

Fig. 9

The Examiner has objected to Fig. 9 for failing to include the reference signs corresponding to "transmitter 940" and "base_address line 982". In response, the Applicant has amended Fig. 9 and respectfully submits that Fig. 9 is in full compliance with 37 CFR 1.84(p)(5).

Fig. 11

The Examiner has objected to Fig. 11 for failing to include the reference signs corresponding to "interconnect pattern 112". The Applicant traverses this rejection. It is respectfully submitted that the portion of the description which concentrates on Fig. 11 is not isolated with respect to the other Figures in the application. In this case, Fig. 1 provides the requisite reference sign 112 that is referred to in the portion of the description that concentrates on Fig. 11.

Fig. 20

The Examiner has objected to Fig. 20 for failing to include the reference signs corresponding to "free_slot lines 207". In response, the Applicant has

amended Fig. 20 and respectfully submits that Fig. 20 is in full compliance with 37 CFR 1.84(p)(5).

Fig. 14

The Examiner has objected to Fig. 14 for failing to include the reference signs corresponding to "bus 1472". In response, the Applicant has amended Fig. 14 and respectfully submits that Fig. 14 is in full compliance with 37 CFR 1.84(p)(5).

Fig. 16

The Examiner has objected to Fig. 16 for failing to include the reference signs corresponding to "transmitter 1440". The Applicant traverses this rejection. It is respectfully submitted that the portion of the description which concentrates on Fig. 16 is not isolated with respect to the other Figures in the application. In this case, Fig. 14 provides the requisite reference sign 1440 that is referred to in the portion of the description that concentrates on Fig. 16.

Fig. 1

The Examiner has objected to Fig. 1 for using reference numbers " 116' " and " 116" " containing inverted commas. In response, the Applicant has amended Fig. 1 and the accompanying portion of the description such that "traces 116" " and "releasable connector 116' " have been replaced by "traces 117" and "releasable connector 119", respectively.

C. REJECTION OF CLAIMS 1-18 UNDER 35 U.S.C. 102

On page 5 of the Office Action, the Examiner has rejected claims 1-18 under 35 U.S.C. 102(e) as being anticipated by Chang *et al.* U.S. Patent 6,731,631 (hereinafter referred to as Chang). In view of the cancellation of claim 18, the Examiner's argument is moot in respect of this claim. As for claims 1-17, the

Applicant respectfully traverses this rejection and submits that claims 1-17 are in allowable form, as set forth herein below.

Claim 1

The Applicant respectfully draws the Examiner's attention to Fig. 20 of Chang and the accompanying description in column 16, lines 24-41 (the very same passage used in the Examiner's rejection), where Chang discloses the working of the free cell manager 2010 that controls the memory of the switch matrix 2004 of a given "switch fabric component" 2202a,b,c,d. The free cell manager 2010 keeps track of the *location* of occupied slots (confusingly termed "cells") in the memory. Specifically, free cell manager 2010 provides information on free and occupied cells to the queue manager 2012, and on to the central controller 2008, which controls the transmission of packets ***from*** the memory of the switch matrix 2004.

However, Chang does not control the transmittal of packets to the switch fabric components 2202a,b,c,d on the basis of a degree of memory occupancy. Specifically, Chang's routing layer is *not* made aware of the degree of occupancy of the memory, so therefore Chang's routing layer cannot possibly ***control release of a data packet toward a cell of said array at least in part on a basis of a degree of occupancy of the memory in said cell***, as claimed in claim 1 of the present application.

Since claim 1 recites at least one feature that is not taught or suggested in the cited reference, it is respectfully submitted that a rejection under 35 U.S.C. 102 is improper. Therefore, the Examiner is respectfully requested to withdraw the rejection of claim 1.

Claims 2-12

These claims are all either directly or indirectly dependent on claim 1 and therefore include all the limitations of claim 1, including those already shown to be absent from Chang. Thus, for the same reasons as those set forth

above in support of claim 1, the Examiner is requested to withdraw the rejection of claims 1-12.

Claim 13

The Applicant again respectfully draws the Examiner's attention to Fig. 20 of Chang and the accompanying description in column 16, lines 24-41, where Chang discloses the working of the free cell manager 2010 that controls the memory of the switch matrix 2004 of a given "switch fabric component" 2202a,b,c,d. It is observed that Chang does not disclose the claimed limitation of each cell having a memory and a control signal path for transporting a control signal to a component external to the array of cells, where the control signal is indicative of a degree of occupancy of the memory. In fact, the Examiner has not attempted to address this limitation in the rejection of claim 13.

Since claim 13 recites at least one feature that is not taught or suggested in the cited reference, it is respectfully submitted that a rejection under 35 U.S.C. 102 is improper. Therefore, the Examiner is respectfully requested to withdraw the rejection of claim 13.

Claims 14-16

These claims are all either directly or indirectly dependent on claim 13 and therefore include all the limitations of claim 13, including those already shown to be absent from Chang. Thus, for the same reasons as those set forth above in support of claim 13, the Examiner is requested to withdraw the rejection of claims 14-16.

Claim 17

The Applicant once again respectfully draws the Examiner's attention to Fig. 20 of Chang and the accompanying description in column 16, lines 24-41, where Chang discloses the working of the free cell manager 2010 that

controls the memory of the switch matrix 2004 of a given "switch fabric component" 2202a,b,c,d. It is observed that Chang does not disclose the claimed limitation of a routing layer including a controller responsive to reception of a control signal containing information indicating that the switching layer is capable of accepting a data packet, to release a data packet to said switching layer. Moreover, Chang fails to disclose the limitation of the control signal containing information indicating the degree of occupancy of a memory included the switching layer. In fact, the Examiner has not attempted to address either of these limitations in the rejection of claim 17.

Since claim 17 recites at least one feature that is not taught or suggested in the cited reference, it is respectfully submitted that a rejection under 35 U.S.C. 102 is improper. Therefore, the Examiner is respectfully requested to withdraw the rejection of claim 17.

CONCLUSION

In view of the foregoing, Applicant is of the view that claims 1-17 are in allowable form. Favourable reconsideration is requested. Early allowance of the Application is earnestly solicited.

If the application is not considered to be in full condition for allowance, for any reason, the Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP 707.07(j) or in making constructive suggestions pursuant to MPEP 706.03 so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,

Ralph A. Dowell
Attorney for Applicant
Reg. No. 26,868

Date: April 12, 2005

DOWELL & DOWELL , P.C.
2111 Eisenhower Ave.
Suite 406
Alexandria, VA 22314
U.S.A.
Telephone: (703) 415-2555
Fax: (703) 415-2559

AMENDMENTS TO THE DRAWINGS

Minor amendments have been made to Figs. 1, 5, 9, 14, 17A and 20. Specifically:

In Fig. 1, reference signs 116'' and 116' have been changed to 117 and 119, respectively.

In Fig. 5, reference signs 508_1 and 508_2 have been replaced with reference signs 508_A, 508_B, 508_C, and reference signs 514_1 and 514_2 have been replaced with reference signs 514_A, 514_B, and 514_C.

In Fig. 9, reference sign 940 has been added to refer to the entirety of the Figure and reference sign 982 has been added to refer to the BASE_ADDRESS line.

In Fig. 14, reference sign 1472 has been added to refer to the bus on the far right-hand side of the Figure.

In Fig. 17A, reference signs 508_1 and 508_2 have been replaced with reference signs 508_A, 508_B, 508_C, and reference signs 514_1 and 514_2 have been replaced with reference signs 514_A, 514_B, and 514_C.

In Fig. 20, reference sign 207 has been added to the free_slot line between transmitter 140 and input interface 116.

ANNOTATED SHEET SHOWING CHANGES

OIPE
APR 18 2005
PATENT & TRADEMARK OFFICE
JC73

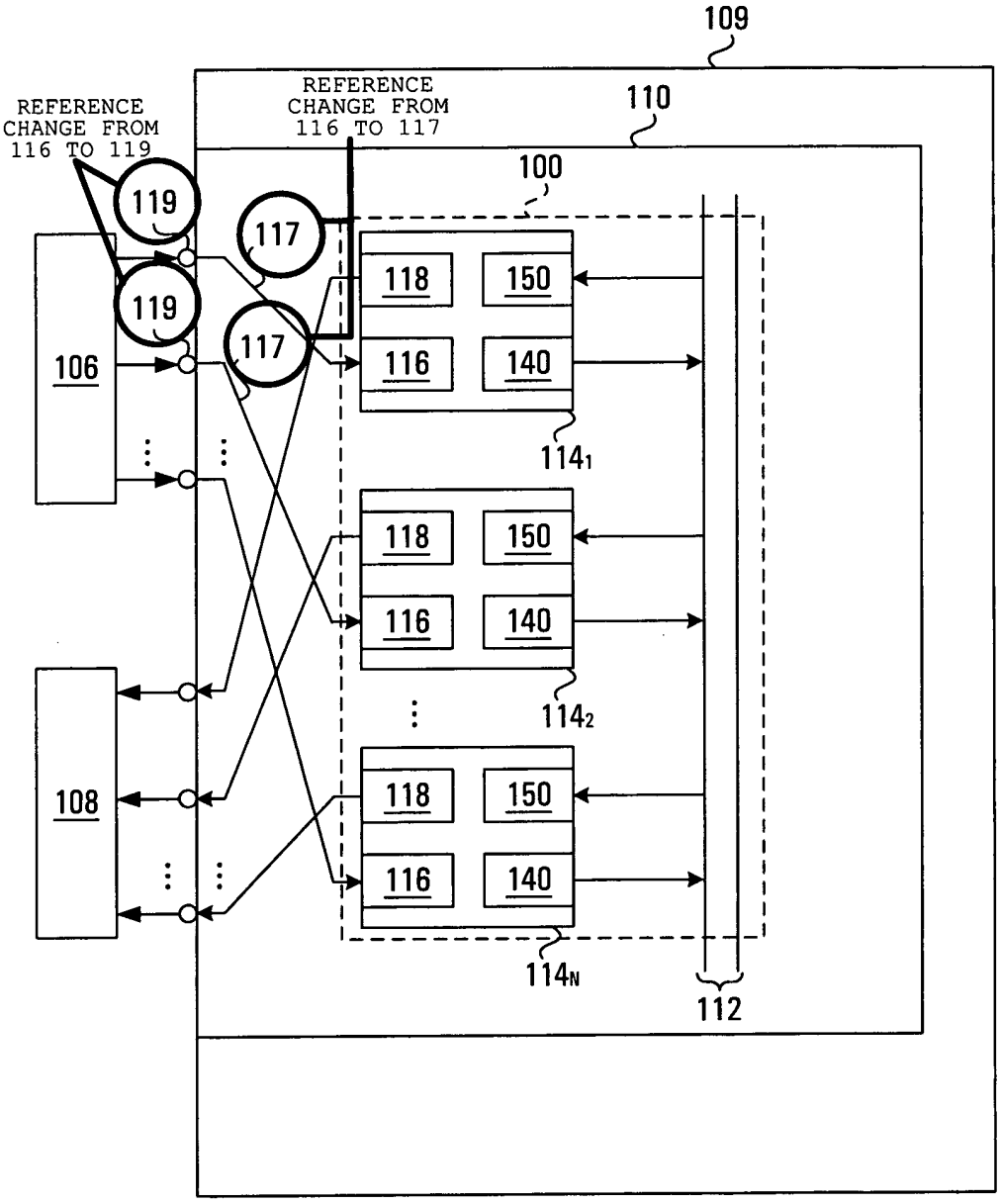


FIG. 1

ANNOTATED SHEET SHOWING CHANGES

OIPE APR 18 2005 PATENT & TRADEMARK OFFICE JC73

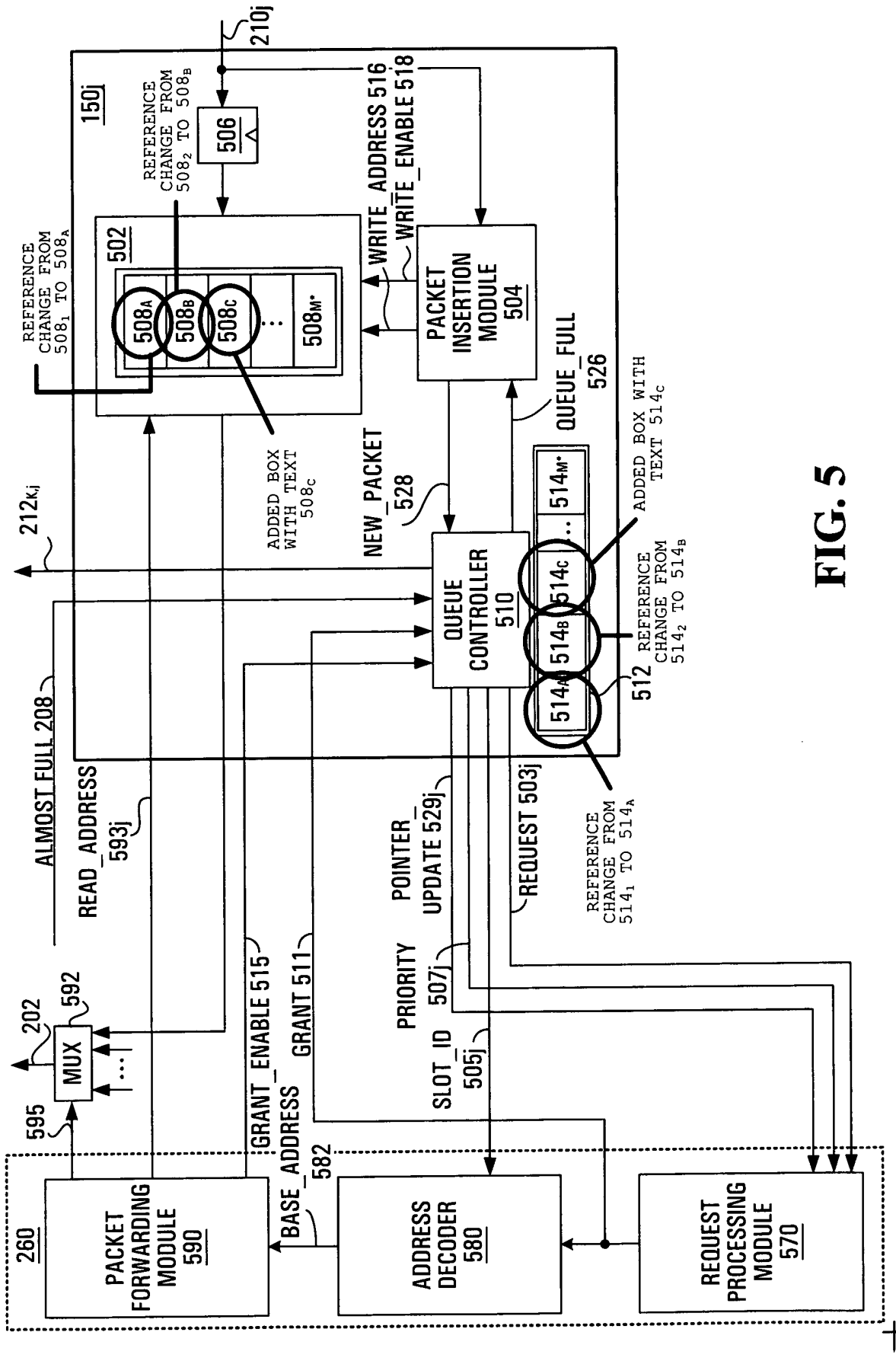


FIG. 5

ANNOTATED SHEET SHOWING CHANGES

OIPE
APR 18 2005
PATENT & TRADEMARK OFFICE
JC73

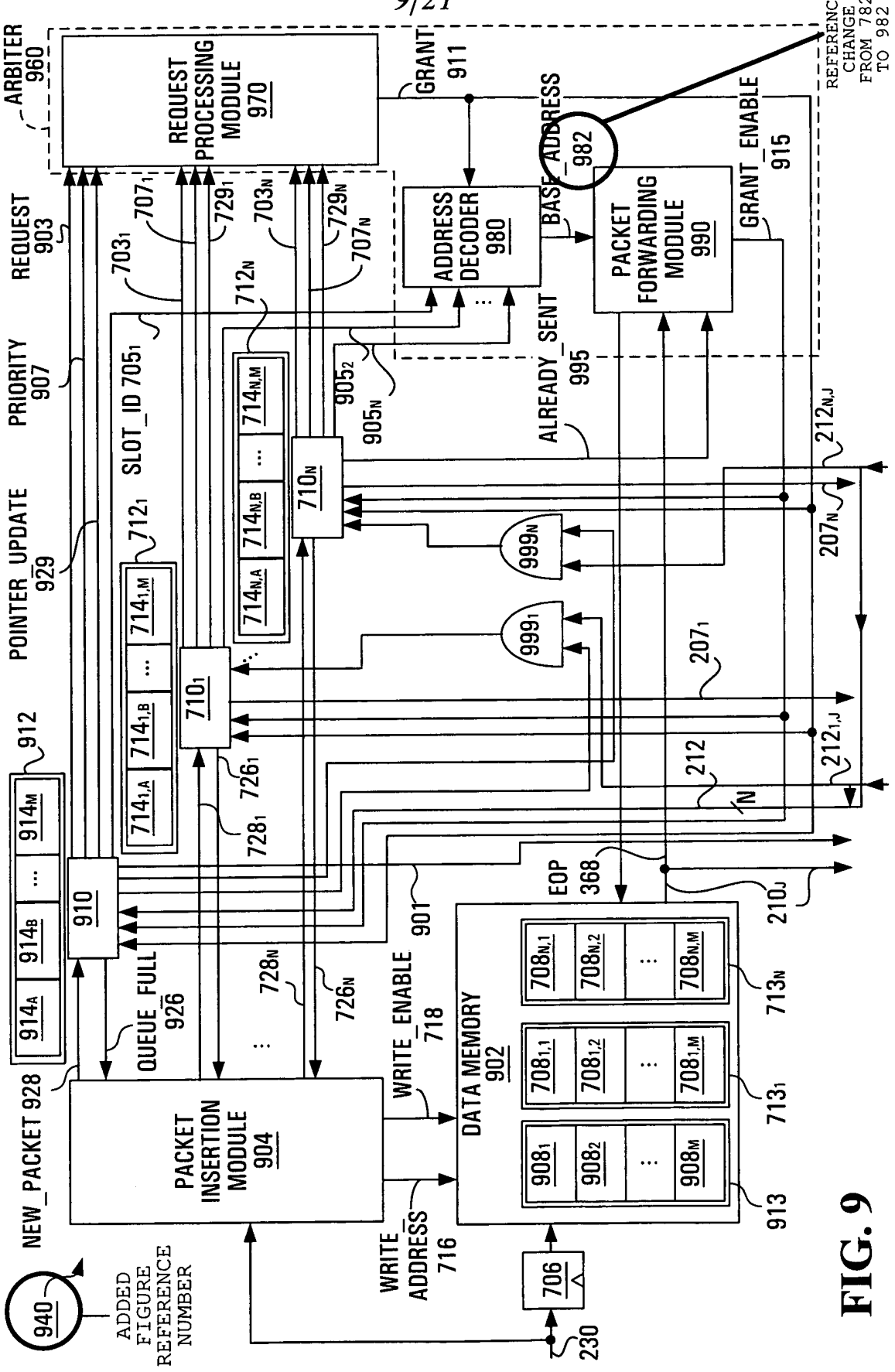


FIG. 9

ANNOTATED SHEET SHOWING CHANGES

OIPE
APR 18 2005
PATENT & TRADEMARK OFFICE
JC73

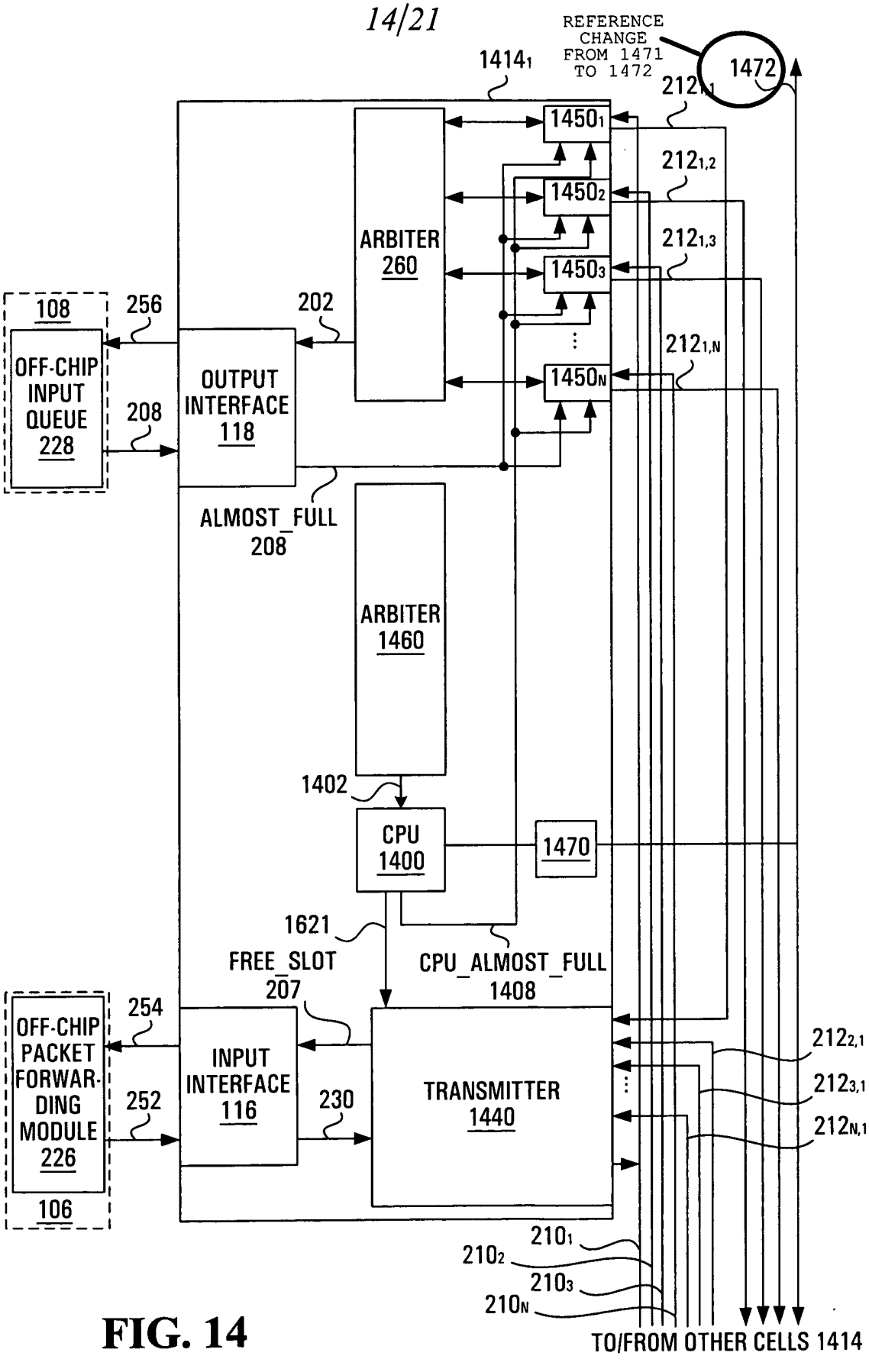
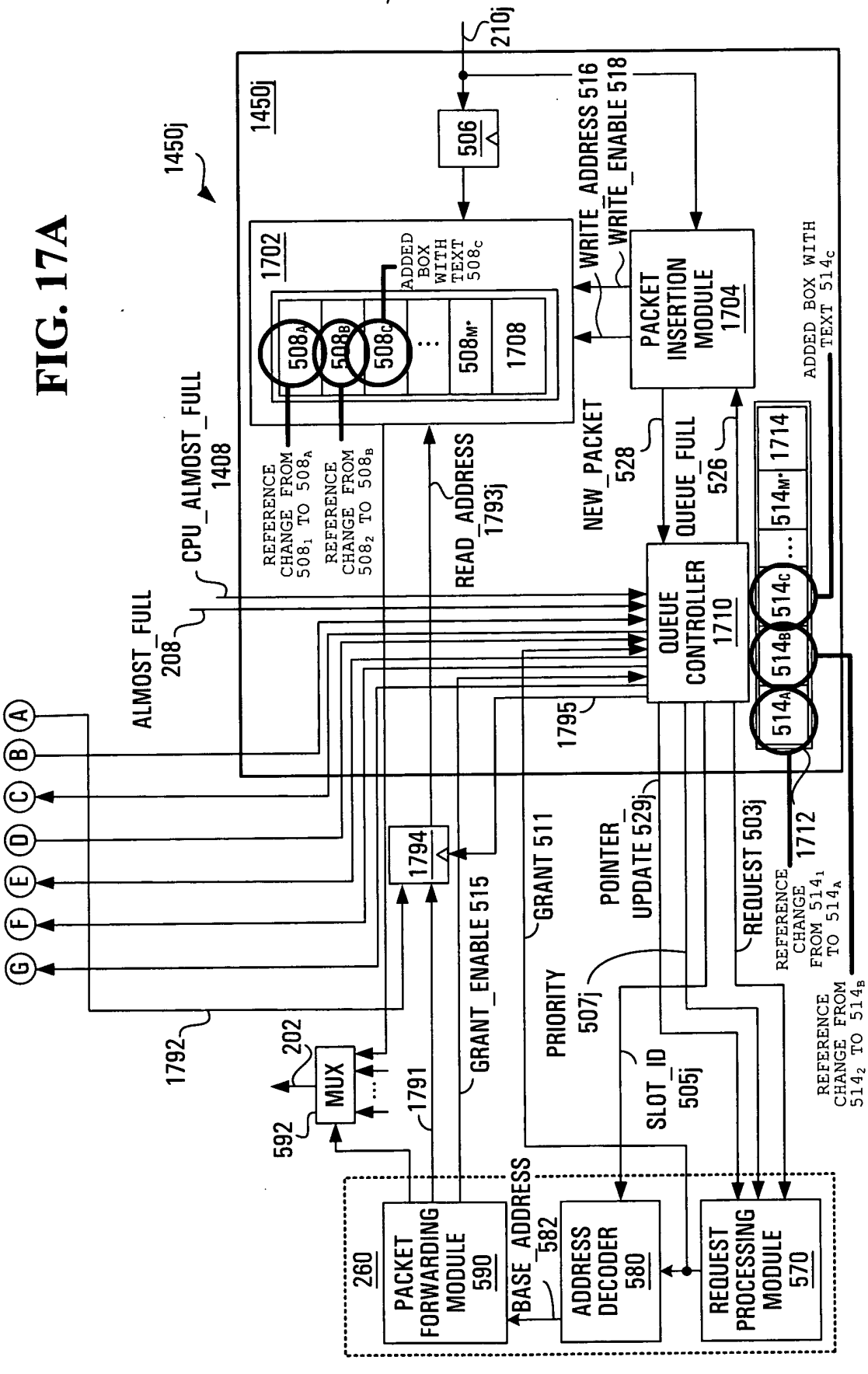


FIG. 14

ANNOTATED SHEET SHOWING CHANGES

OIPE
APR 18 2005
PATENT & TRADEMARK OFFICE
JC13

FIG. 17A



ANNOTATED SHEET SHOWING CHANGES

OIPE
APR 18 2005
PATENT & TRADEMARK OFFICE

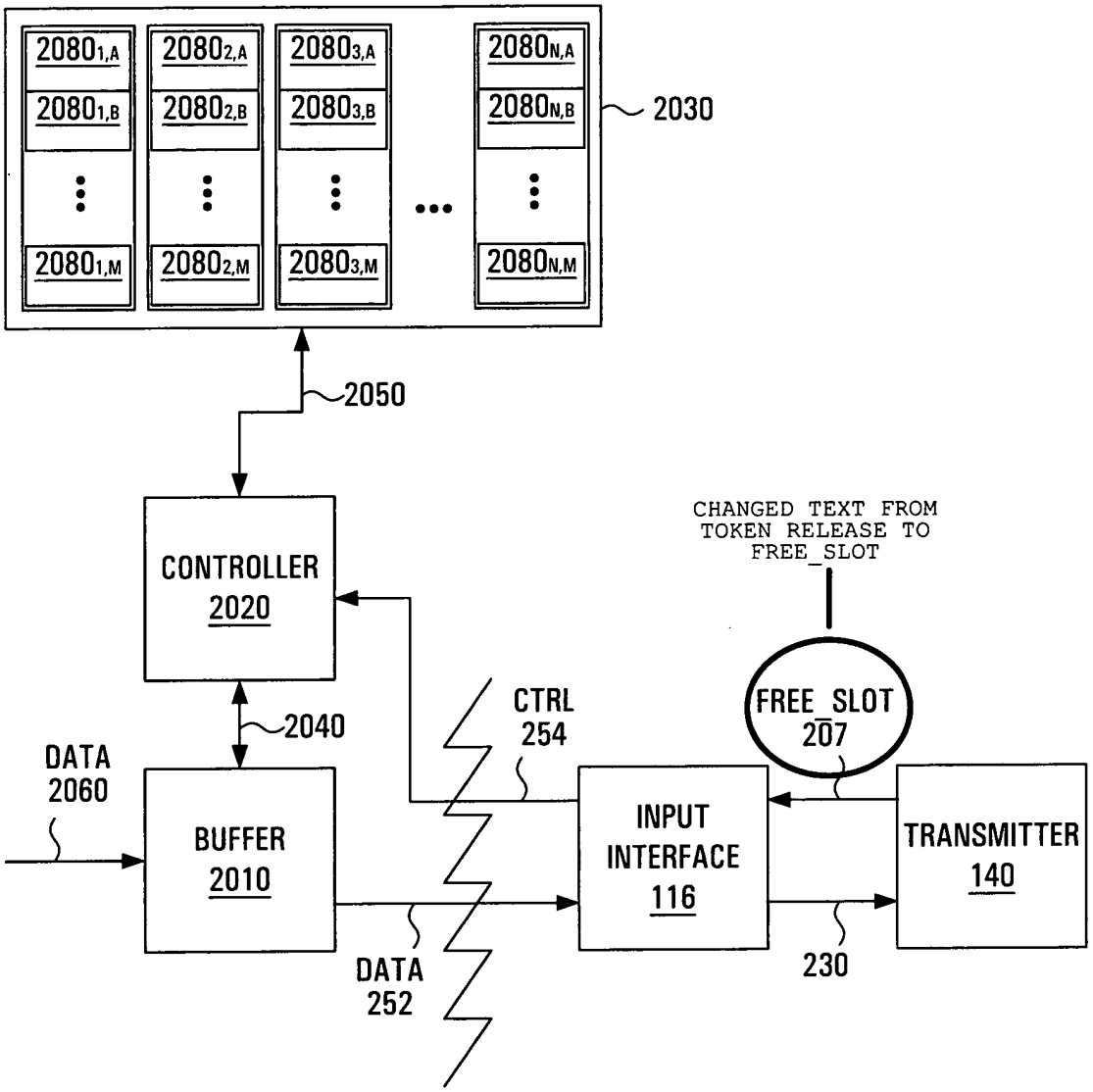


FIG. 20